

Claims

1. A closure for a compartment having one or more walls and an opening defined by at least one of the walls, the closure being associated with at least one fastener located inside the compartment and adapted to hold the closure in a first position relative to the opening, the fastener being adapted to cause the closure to assume a second position relative to the opening upon receipt of a suitable signal, wherein the closure includes at least one indicium visible from outside the compartment and adapted to provide a visual indication of a status of the closure or the compartment.
- 10 2. A closure for a compartment having one or more walls and an opening defined by at least one of the walls, the closure being associated with at least one fastener located inside the compartment and adapted to hold the closure in a first position relative to the opening, the fastener being adapted to cause the closure to assume a second position relative to the opening upon receipt of a suitable signal, wherein the fastener includes means for communicating to a remote device 15 information relating to the closure, the compartment or contents of the compartment.
3. A closure for a compartment having one or more walls and an opening defined by at least one of the walls, the closure being associated with at least one fastener located inside the compartment and adapted to hold the closure in a first position relative to the opening, the fastener being adapted to cause the closure to assume a second position relative to the opening upon receipt of a suitable signal, wherein the compartment forms an array with other compartments having similar 20 fasteners, the first-mentioned fastener is addressable and the signal is provided by means external to the compartment and capable of addressing the first- 25 mentioned fastener.
4. A closure for a compartment having one or more walls and an opening defined by at least one of the walls, the closure being associated with at least one fastener

located inside the compartment and adapted to hold the closure in a first position relative to the opening, the fastener being adapted to cause the closure to assume a second position relative to the opening upon receipt of a suitable signal, wherein the closure includes at least one indicium visible from outside the compartment and adapted to provide a visual indication of a status of the closure or the compartment, and wherein the fastener includes means for communicating to a remote device information relating to the closure, the compartment or its contents.

5. The closure of any one of claims 1, 2 or 4, wherein the compartment forms an array with other compartments having similar fasteners, the first-mentioned fastener is addressable and the signal is provided by means external to the compartment and capable of addressing the first-mentioned fastener.
10. The closure of any one of claims 1-5, wherein the compartment is a mail box or locker.
15. 7. The closure of claim 6, wherein the compartment is a mail box having an internal opening for deposit of mail.
8. The closure of any one of claims 1-7, having a slot provided at one end of or through the closure.
9. The closure of any one of claims 1-8, wherein the closure is hinged to the compartment at the opening.
20. 10. The closure of any one of claims 1-9, wherein in the first position the closure closes the opening.
11. The closure of claim 10, wherein the fastener located inside the compartment is adapted to hold the closure in the first position relative to the opening without 25 input of energy.

12. The closure of any one of claims 1-11, wherein in the second position the closure permits access to the opening upon receipt of the signal.
13. The closure of any one of claims 1-12, wherein the fastener includes a fastening element having a flexible beam and an engagement means; and actuating means attached to the fastener and including a material adapted to contract when activated; the beam being moveable, upon contraction of the material, between an engagement position and a disengagement position.
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14. The closure of the claim 13, wherein the material adapted to contract when activated is chosen from the group; shape memory wire, shape memory strip and shape memory alloy in sputter form.
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15. The closure of claim 13 or 14, which includes two of the actuating means attached to the fastening element.
16. The closure of claim 15, wherein one of the actuating means is adapted to cause the beam to move to the disengagement position and the other actuating means is adapted to cause the beam to move to the engagement position.
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17. The closure of any one of claims 1-12, wherein the fastener is a fastener assembly for releasably securing an element, the element including a post having a groove, the assembly including a bar adapted to engage the groove to secure the element, the assembly also including a connecting means attached to the bar and consisting of or including shape memory material which, upon application of suitable energy, is adapted to change shape and draw the bar out of engagement with the groove thus releasing the element.
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18. The closure of claim 17, wherein the element has more than one post, each having a groove.
- 25 19. The closure of claim 19, wherein the bar is adapted to engage the groove in more than one post.

20. The closure of any one of claims 17-19, wherein the shape memory material is a titanium-nickel wire and the suitable energy is heat.
21. The closure of any one of claims 1-20, wherein the fastener is adapted to cause the closure to assume the second position relative to the opening by releasing the closure, the closure adapted to fall open under the influence of gravity.
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22. The closure of any one of claims 1-21, wherein the closure is adapted to return to the first position from the second position by the application of pressure of the closure against the opening.
23. The closure of any one of claims 1-22, the closure being associated with two or
10 more fasteners.
24. The closure of any one of claims 1-23, wherein each fastener is located on the closure.
25. The closure of any one of claims 1-23, wherein each fastener is located on a wall of the compartment.
- 15 26. The closure of claim 3, where there is more than one fastener associated with the closure, but only one fastener is addressable.
27. The closure of claim 3 or 26, wherein at least one fastener is encrypted.
28. The closure of claim 1, wherein the indicium shows one or more of the following:
 - 20 (i) whether the closure is in the first position or the second position;
 - (ii) whether the compartment contains contents or is empty.
29. The closure of claim 1 or 28, wherein the indicium takes a form of one or more light emitting diode chips.

30. The closure of claim 29, wherein the fastener is linked to the light emitting diode chip or chips.
31. The closure as claimed in claim 2, wherein the fastener is adapted to read information on an article located inside the compartment and to communicate information regarding the article to the remote device.
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32. The closure as claimed in claim 1 or 31, wherein the remote device is a computer and the means for communicating is adapted to communicate by email to the computer.
33. The closure as claimed in claim 1 or claim 31, wherein the remote device is a mobile phone and the means for communicating is adapted to communicate a text message to the mobile phone.
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34. The closure of claim 2, wherein the information relates to status of the closure and is chosen from the group being closure open, closure closed and closure damaged.
- 15 35. The closure of claim 2, wherein the information relates to status of the compartment and is chosen from the group: compartment empty, compartment occupied, compartment occupied by dangerous contents.
36. A compartment having the closure of any one of claims 1-35.
37. The compartment of claim 36, when associated with means for reading
20 identifying indicia to be placed within the compartment.
38. An array of compartments as claimed in claim 36 or 37.
39. The array of claim 38, linked to a smart card reader.
40. The array of claim 38 or 39, wherein the fasteners are connected in series.

41. The array of any one of claims 38 to 40, wherein each fastener is addressable on an individual basis or as part of a group.
42. The array of claim 38, wherein the smart card reader is configured to deduct a fee each time a smart card is read by the smart card reader.
- 5 43. The array of claim 42, wherein the fee is deducted against a credit on the smart card or from a remote account.
44. The array of claim 42 or 43, wherein the smart card is adapted to open another closure and/or to operate as a credit card.
45. A closure substantially as herein described with reference to figures 1, 2 and 3 or
10 4 or figures 5-11 or figures 12-18 or figure 20 or figure 21.
46. An array of compartments substantially as herein described with reference to figure 19.